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CLAIMS:

- 1. An isolated polypeptide comprising an amino acid sequence which has at least 85% identity to the amino acid sequence of SEQ ID NO:2 over the entire length of SEQ ID NO:2.
- 2. An isolated polypeptide as claimed in claim 1 in which the amino acid sequence has at least 95% identity to the amino acid sequence of SEQ ID NO:2.
- 3. The polypeptide as claimed in claim 1 comprising the amino acid sequence of SEQ ID NO:2.
 - 4. An isolated polypeptide of SEQ ID NO:2.
- 5. An isolated immunogenic fragment of the polypeptide as claimed in any one of claims 1 to 4 which fragment (if necessary when coupled to a carrier) is capable of raising an immune response which recognises the polypeptide of SEQ ID NO:2.
- 6. A polypeptide as claimed in any of claims 1 to 5 wherein said polypeptide is part of a larger fusion protein.
 - 7. An isolated polynucleotide encoding a polypeptide as claimed in any of claims 1 to 6.
- 8. An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that
 has at least 85% identity to the amino acid sequence of SEQ ID NO:2 over the entire length
 of SEQ ID NO:2; or a nucleotide sequence complementary to said isolated polynucleotide.
 - 9. An isolated polynucleotide comprising a nucleotide sequence that has at least 85% identity to a nucleotide sequence encoding a polypeptide of SEQ ID NO:2 over the entire coding region; or a nucleotide sequence complementary to said isolated polynucleotide.

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- 10. An isolated polynucleotide which comprises a nucleotide sequence which has at least 85% identity to that of SEQ ID NO:1 over the entire length of SEQ ID NO:1; or a nucleotide sequence complementary to said isolated polynucleotide.
- 11. The isolated polynucleotide as claimed in any one of claims 7 to 10 in which the 5 identity is at least 95% to SEQ ID NO:1.
 - 12. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2.
 - 13. An isolated polynucleotide comprising the polynucleotide of SEQ ID NO:1.
- 14. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEO ID NO:2, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of SEQ ID NO:1 or a 15 fragment thereof.
 - 15. An expression vector comprising an isolated polynucleotide according to any one of claims 7 - 14.
 - 16. A recombinant live microorganism comprising an expression vector according to claim 15.
 - 17. A host cell comprising the expression vector of claim 15.
 - 18. A membrane of the host cell according to claim 17 expressing an isolated polypeptide comprising an amino acid sequence that has at least 85% identity to the amino acid sequence of SEQ ID NO:2.
 - 19. A process for producing a polypeptide comprising an amino acid sequence that has at least 85% identity to the amino acid sequence of SEQ ID NO:2 comprising culturing a host cell of claim 17 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture medium.

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- x_0 . A process for expressing a polynucleotide of any one of claims 7-14 comprising transforming a host cell with the expression vector comprising at least one of said polynucleotides and culturing said host cell under conditions sufficient for expression of any one of said polynucleotides.
- 21. A vaccine composition comprising an effective amount of the polypeptide of any one of claims to 6 and a pharmaceutically acceptable carrier.
- 22. A vaccine composition comprising an effective amount of the polynucleotide of any one of claims 7 to 14 and a pharmaceutically effective carrier.
- 23. The vaccine composition according to either one of claims 21 or 22 wherein said composition comprises at least one other Moraxella catarrhalis antigen.
- 24. An antibody generated against the polypeptide or immunological fragment as claimed in any one of claims 1 to 6.
- 25. A method of diagnosing a *Moraxella* infection, comprising identifying a polypeptide as claimed in any one of claims 1 6, or an antibody that is immunospecific for said polypeptide, present within a biological sample from an animal suspected of having such an infection.
 - 26. Use of a composition comprising an immunologically effective amount of a polypeptide as claimed in any one of claims 1-6 in the preparation of a medicament for use in generating an immune response in an animal.
 - 27. Use of a composition comprising an immunologically effective amount of a polynucleotide as claimed in any one of claims 7 14 in the preparation of a medicament for use in generating an immune response in an animal.

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28. A therapeutic composition useful in treating humans with Moraxella catarrhalis disease comprising at least one antibody directed against the polypeptide of claims 1 – 6 and a suitable pharmaceutical carrier.





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